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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,530	10/31/2003	Peter J. Zievers	ZIEVERS 2	2711

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DUFT BORNSEN & FISHMAN, LLP
1526 SPRUCE STREET
SUITE 302
BOULDER, CO 80302

EXAMINER	
SHIN, CHRISTOPHER B	
ART UNIT	**PAPER NUMBER**
2182	

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/699,530	ZIEVERS, PETER J.	
	Examiner	Art Unit	
	Christopher B. Shin	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the related applications information is missing.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In claim 1:

In line 3, the phrase "reading and writing" lacks proper and clear antecedent basis.

In line 4, the phrase "busy/idle state" lacks proper and clear antecedent basis.

In lines 6-7, the phrase "receipt of said signals to determine the present busy/idle state" lacks proper and clear antecedent basis.

b. In claims 2 & 12;

In line 3, the phrase "request to define a buffered request" lacks proper and clear antecedent basis.

c. In claims 4 & 14;

In line 3, the phrase "time duration the memory is in a busy state" lacks proper and clear antecedent basis.

d. In claims 6 & 16;

In line 3, the "present occupancy level" lacks proper and clear antecedent basis.

e. In claim 11;

In line 3, the "reading and writing" lacks proper and clear antecedent basis.

In line 5, the busy/idle state" lacks proper and clear antecedent basis.

In line 7, the "access flow regulator" lacks proper and clear antecedent basis.

In lines 8-9, the receipt of said signals to determine the present busy/idle state" lacks proper and clear antecedent basis.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-18 are provisionally rejected on the ground of nonstatutory double patenting over claims 16-18 in combination with claims 1-15 of copending Application No. 10/699,355. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

The (355) application recites the claims that are substantially identical to the present claims; therefore the present claims are not patentably distinct from the claims of the (355) application.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

7. Claims 1-18 are provisionally rejected on the ground of nonstatutory double patenting over claims 18-20 in combination with claims 1-17 of copending Application

No. 10/699,315. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

The (315) application recites the claims that are substantially identical to the present claims; therefore the present claims are not patentably distinct from the claims of the (315) application.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-4, 7-8, 11-14 and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cohen (6,026,464).

i. In figures 1, 3, 4 & 6, and the respective descriptive sections, the Cohen reference teaches all of the substantially equivalent or identical limitations of the claims as follows:

Claims 11-14 & 18 figures 1,3,4, 6

- Memory management system for resolving contention for access to a plurality of memories
  - System of figure 1
- Apparatus for generating requests for the reading and writing of data by said memories
  - (14, 16, 26, 28) of figure 1
- Apparatus for generating signals indicating the busy/idle state of each of said memories
  - Column 3, 51-52, column 5, lines 17-18
- Access flow regulator
  - Function/operation of (18)
- Apparatus for extending said signals to said access flow generator
  - Function /operation of (18)
- Apparatus for operating said access flow regulator in response to said receipt of said signals to determine the present busy/idle state of each of said memories
  - Figure 3, (52, 54, 56, 60, 62), see also column 5
- Apparatus for operating said access flow regulator in response to a determination that one of said memories is currently idle for granting a request to for the reading or writing of a data by said one memory
  - Column 5, lines 47-49, (18)
- Apparatus for operating said access flow regulator in response to a determination that none of said memories is currently idle for buffering said request to define a buffered request until one of said memories becomes idle
  - Column 5, lines 17-49, (18)
- Apparatus for granting said buffered request when said one of said memories becomes idle
  - Column 5, lines 17-49, (18)
- Apparatus for determining that a plurality of requests are currently seeking access to an idle one of said memories
  - Columns 3-4, lines 51-4, (18)
- Apparatus for granting one of said requests access to said idle memory; and
  - Columns 3-4, lines 51-4, (18)
- Buffering the other of said requests until one of said memories becomes available to serve said other request
  - Column 3, lines 62-64
- Apparatus for monitoring the present busy/idle state of each of said memories

- Column 5, lines 17-18

- Apparatus for generating busy signal only for the time duration a memory is in a busy state
  - Column 5, lines 47-49
- Apparatus for generating an idle signal immediately upon a determination that a memory has assumed and idle state
  - Column 5, lines 47-49
- Apparatus for extending said idle signal to said access flow regulator
  - Function/operation of (18)
- Apparatus for operating said access flow regulator to grant a waiting request access to said memory immediately upon the receipt of said idle signal by said access flow regulator
  - Column 5, lines 17-49, (18), Columns 3-4, lines 51-4
- Apparatus for operating said system to concurrently process a plurality of requests for access to idle to one s of said memories
  - Column 5, lines 17-49, (18), Columns 3-4, lines 51-4
- Apparatus for buffering said requests that are received when an idle one of said memories is not available
  - Column 5, lines 17-49, (18), Columns 3-4, lines 51-4

ii. Cohen reference teaches all of the basic claimed limitations that substantially equivalent or identical; therefore, the claimed invention would have been anticipated by the teachings of the Cohen reference. However, the examiner notes that the claimed invention and the teachings of the Cohen reference is not exactly identical, the Cohen's teaching of the memory controllers (18) are substantially identical or equivalent. The claimed invention reads on the basic operations of the memory controller (18); therefore, it would have been obvious at the time the invention was made to one having ordinary skill in the art to come up with the claimed invention from the teachings of the Cohen reference for the reasons stated above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher B. Shin whose telephone number is 571-272-4159. The examiner can normally be reached on 6:30-5:00 M,Tu,Th,F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Shin
Primary Examiner
of 2182

February 9, 2006
Cbs